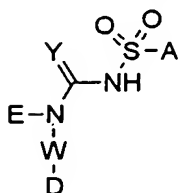
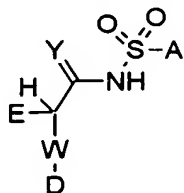


The claimed invention is:

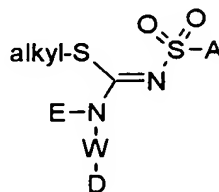
1. A compound selected from the group consisting of formula (I), formula (II), formula (III), formula (IV), formula (V) and formula (VI):



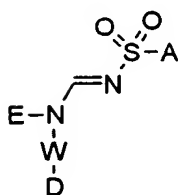
I



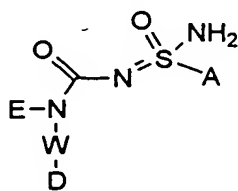
II



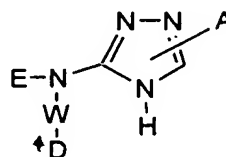
III



IV



V



VI

5

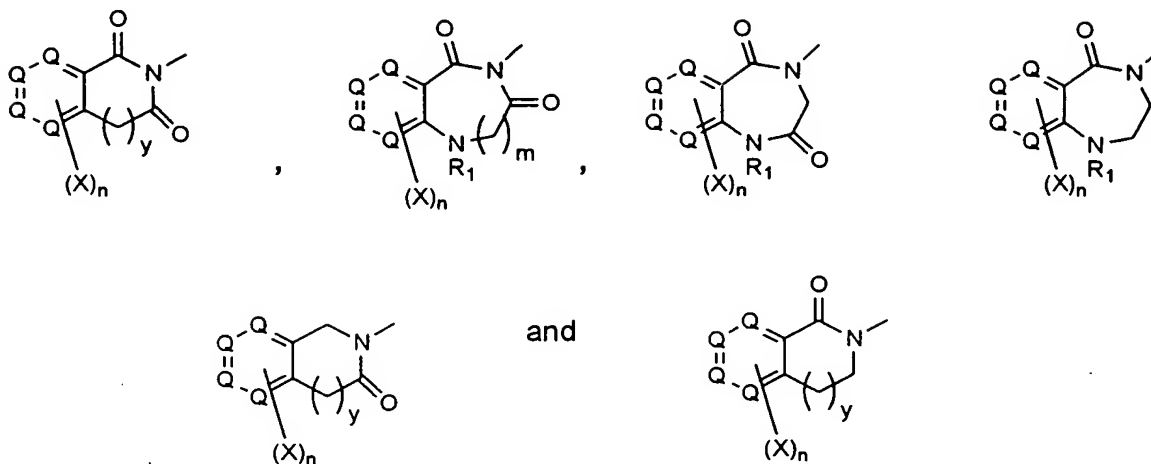
wherein:

A is selected from the group consisting of aryl, substituted aryl, heteroaryl, substituted heteroaryl, alkylaryl, and alkylheteroaryl;

- 10 W is selected from the group consisting of aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

E is selected from the group consisting of H, -C₁-C₈ alkyl, polyhaloalkyl, -C₃₋₈-cycloalkyl, aryl, alkylaryl, substituted aryl, heteroaryl, and substituted heteroaryl;

D is selected from the group consisting of -NR¹-(C=O)-R², -O-R¹;



wherein:

R¹ is independently selected from the group consisting of:

- 5 H, C₁-C₈ alkyl, polyhaloalkyl, -C₃₋₈-cycloalkyl, aryl, alkylaryl, substituted aryl, heteroaryl, substituted heteroaryl, -(C=O)-C₁-C₈ alkyl, -(C=O)-aryl, -(C=O)-substituted aryl, -(C=O)-heteroaryl and -(C=O)-substituted heteroaryl;

R² is independently selected from the group consisting of: aryl, substituted aryl, heteroaryl, and substituted heteroaryl, or

- 10 R¹ and R² can be direct linked or can be indirectly linked through a carbon chain that is from 1 to about 8 carbon atoms in length,

n is an integer from 0-4,

m is an integer from 0 or 1,

y is an integer from 0-4 and

- 15 Q is independently C or N, wherein when Q is a ring carbon atom, each ring carbon atom is independently substituted by X, wherein

X is in each case a member independently selected from the group consisting of:

- 20 hydrogen, halogen, polyhaloalkyl, -OR³, -SR³, -CN, -NO₂, -SO₂R³, -C₁₋₁₀-alkyl, -C₃₋₈-cycloalkyl, aryl, aryl-substituted by 1-4 R³ groups, amino, amino-C₁₋₈-alkyl, C₁₋₃-acylamino, C₁₋₃-acylamino-C₁₋₈-alkyl, C₁₋₆-alkylamino, C₁₋₆-alkylamino C₁₋₈ alkyl, C₁₋₆ dialkylamino, C₁₋₆ dialkylamino C₁₋₈ alkyl, C₁₋₆ alkoxy, C₁₋₆ alkoxy-C₁₋₆-alkyl,

carboxy-C₁₋₆-alkyl, C₁₋₃-alkoxycarbonyl, C₁₋₃-alkoxycarbonyl-C₁₋₆-alkyl, carboxy C₁₋₆ alkyloxy, hydroxy, hydroxy C₁₋₆ alkyl, and a 5 to 10 membered fused or non-fused aromatic or nonaromatic heterocyclic ring system, having 1 to 4 heteroatoms independently selected from N, O, and S, with the proviso that the carbon and nitrogen atoms, when present in the heterocyclic ring system, are unsubstituted, mono- or di- substituted independently with 0-2 R⁴ groups,

wherein R³ and R⁴ are each independently selected from the group consisting of:

hydrogen, halogen, -CN, -NO₂, -C₁₋₁₀ alkyl, C₃₋₈-cycloalkyl, aryl, amino, amino-C₁₋₈-alkyl, C₁₋₃-acylamino, C₁₋₃-acylamino-C₁₋₈-alkyl, C₁₋₆-alkylamino, C₁₋₆-alkylamino C₁₋₈ alkyl, C₁₋₆ dialkylamino, C₁₋₆ dialkylamino C₁₋₈ alkyl, C₁₋₆ alkoxy, C₁₋₆ alkoxy-C₁₋₆-alkyl, carboxy-C₁₋₆-alkyl, C₁₋₃-alkoxycarbonyl, C₁₋₃-alkoxycarbonyl-C₁₋₆-alkyl, carboxy-C₁₋₆-alkyloxy, hydroxy, hydroxy-C₁₋₆-alkyl, -thio and thio-C₁₋₆-alkyl;

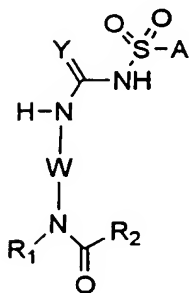
Y is selected from the group consisting of O, S, N-OR⁵, and NR⁵,

wherein R⁵ is selected from the group consisting of:

H, C₁₋₁₀ alkyl, C₃₋₈-cycloalkyl, and CN;

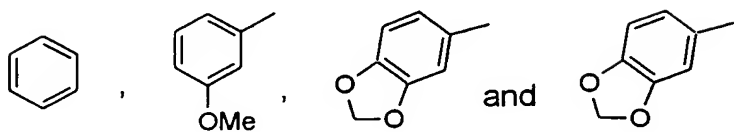
or pharmaceutically acceptable salts and prodrugs.

2. A compound of claim 1, having the following formula:



wherein:

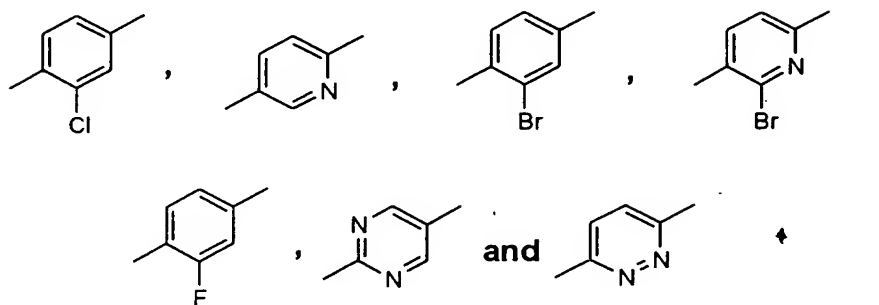
R₂ is selected from the group consisting of:



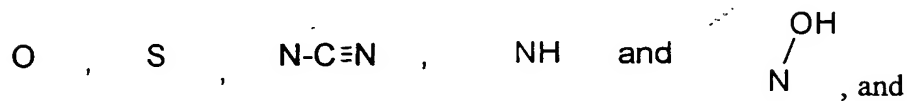
R₁ is selected from the group consisting of:



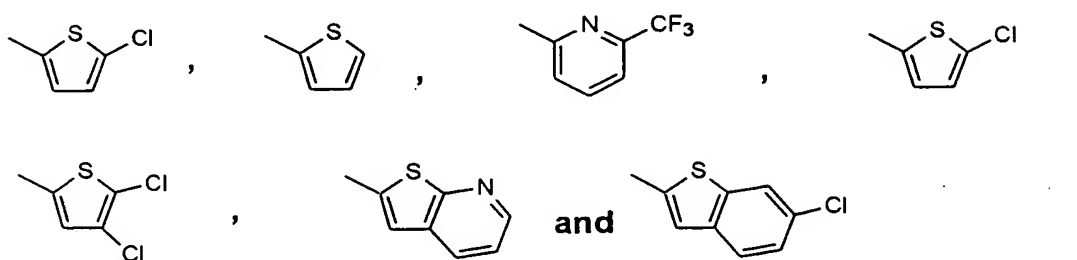
W is selected from the group consisting of:



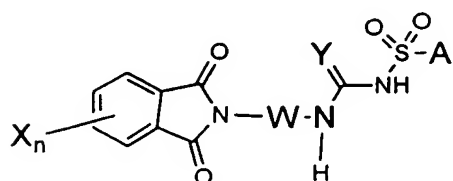
Y is selected from the group consisting of:



10 A is selected from the group consisting of:



15 3. A compound of claim 1, having the following formula,



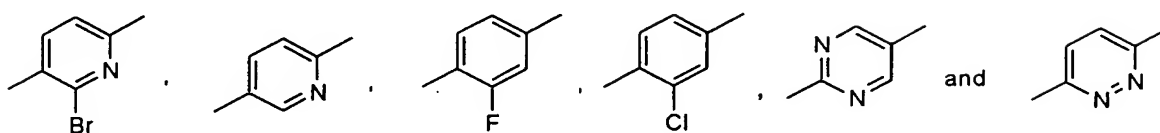
wherein:

n is an integer from 0-4;

X is selected from the group consisting of:

- 5 3-Br, 3-Cl, 4-OMe, H, 3-SO₂Me, 3-N(Me)₂ and 3,4,-dimethyl;

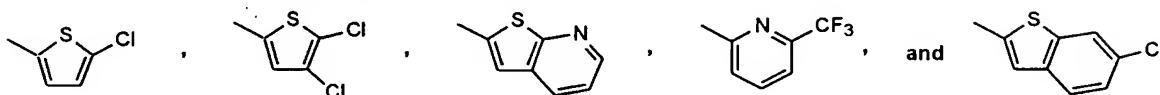
W is selected from the group consisting of:



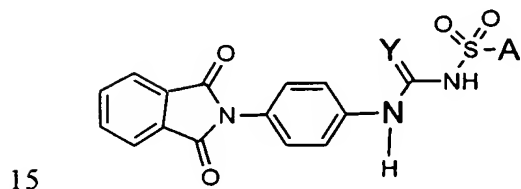
Y is selected from the group consisting of:

- 10 O , N-C≡N , NH and

A is selected from the group consisting of:



4. A compound of claim 1, having the following formula:

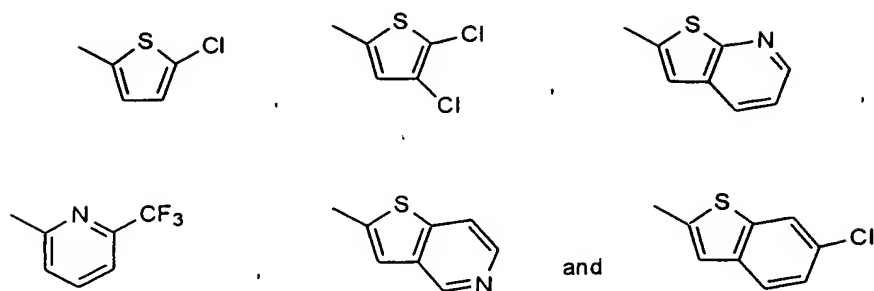


wherein:

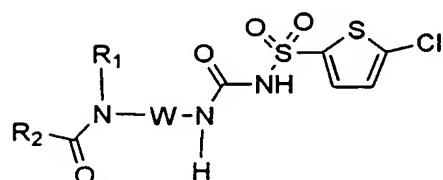
Y is selected from the group consisting of:

- 20 O , N-C≡N , NH and

A is selected from the group consisting of:



5. A compound of claim 1, having the following formula:

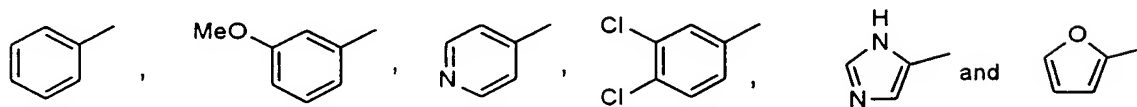


wherein

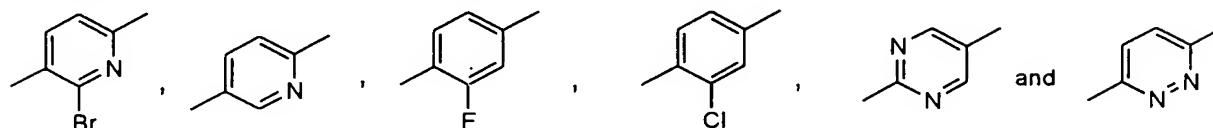
R₁ is selected from the group consisting of:



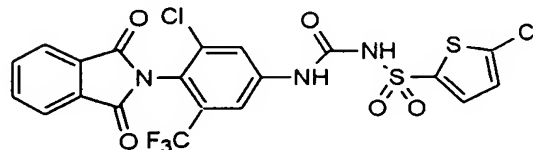
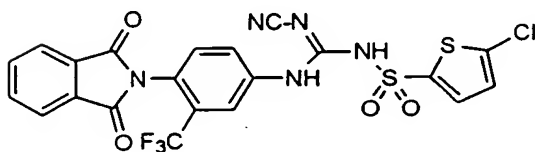
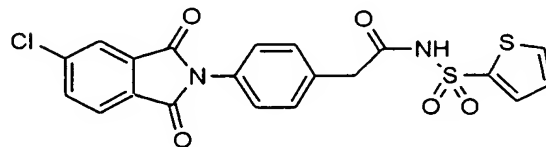
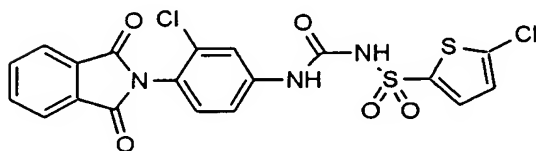
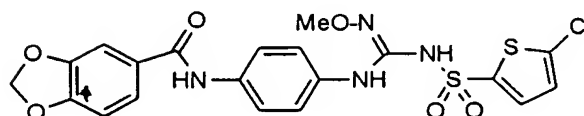
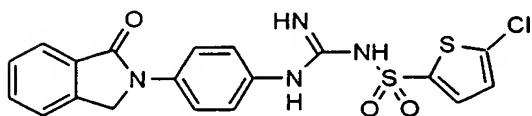
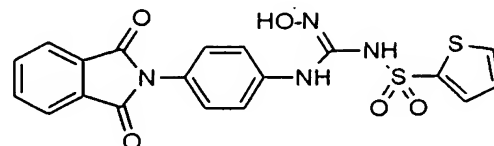
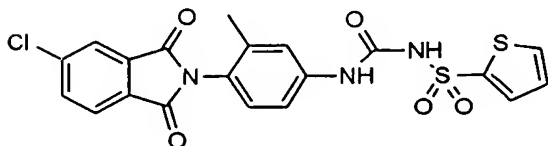
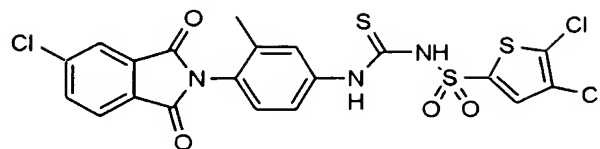
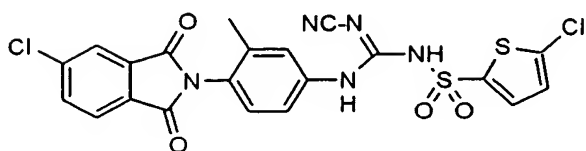
R₂ is selected from the group consisting of:



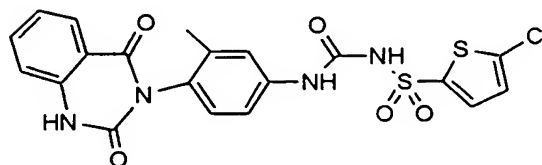
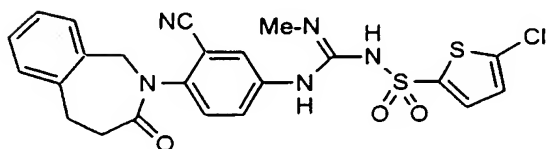
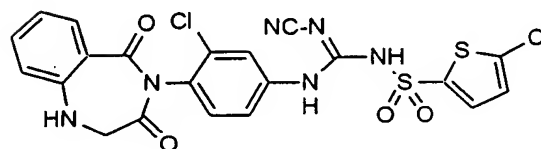
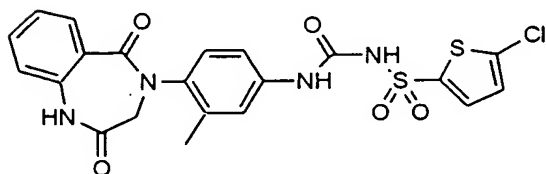
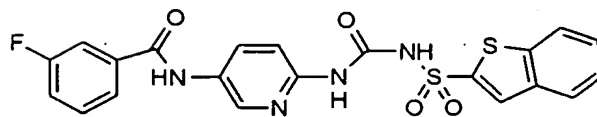
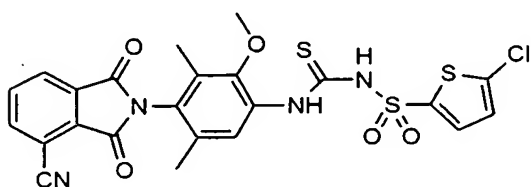
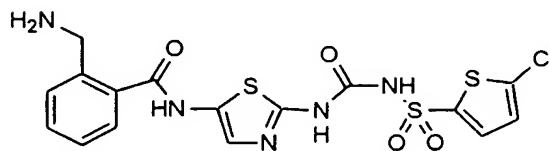
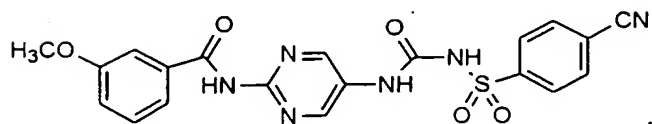
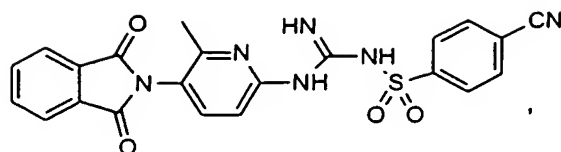
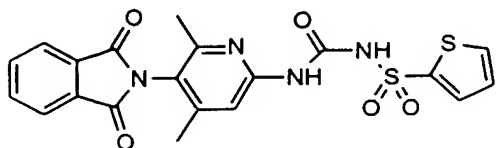
W is selected from the group consisting of:



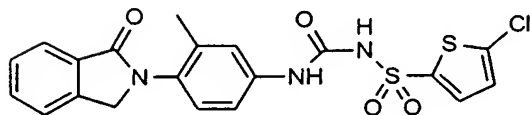
6. A compound of claim 1, selected from the group consisting of:



5



and



7. A pharmaceutical composition for preventing or treating thrombosis in a mammal comprising a therapeutically effective amount of a compound according to claim 1,

or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

8. A pharmaceutical composition of claim 7, wherein said therapeutically effective amount is an amount effective to inhibit platelet aggregation in the mammal.
9. A pharmaceutical composition of claim 8, wherein said platelet aggregation is platelet ADP-dependent aggregation.
10. A pharmaceutical composition of claim 9, wherein said mammal is a human.
11. A pharmaceutical composition of claim 7, wherein said compound is an effective inhibitor of [³H]2-MeS-ADP binding to platelet ADP receptors.
12. A pharmaceutical composition for preventing or treating thrombosis in a mammal comprising a therapeutically effective amount of a compound according to claim 6, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.
13. A pharmaceutical composition of claim 12, wherein said therapeutically effective amount is an amount effective to inhibit platelet aggregation in the mammal.
14. A pharmaceutical composition of claim 13, wherein said platelet aggregation is platelet ADP-dependent aggregation.
15. A pharmaceutical composition of claim 14, wherein said mammal is a human.
16. A pharmaceutical composition of claim 12, wherein said compound is an effective inhibitor of [³H]2-MeS-ADP binding to platelet ADP receptors.
17. A method for preventing or treating thrombosis in a mammal comprising the step of administering to a mammal a therapeutically effective amount of a compound of claim 1 or a pharmaceutically acceptable salt thereof.

18. A method of claim 17, wherein said mammal is a human.

19. A method of claim 17, wherein said mammal is prone to or suffers from a
5 cardiovascular disease.

20. A method of claim 17, wherein said cardiovascular disease is at least one selected from
the group consisting of acute myocardial infarction, unstable angina, chronic stable
angina, transient ischemic attacks, strokes, peripheral vascular disease,
10 preeclampsia/eclampsia, deep venous thrombosis, embolism, disseminated intravascular
coagulation and thrombotic cytopenic purpura, thrombotic and restenotic
complications following invasive procedures resulting from angioplasty, carotid
endarterectomy, post CABG (coronary artery bypass graft) surgery, vascular graft
surgery, stent placements and insertion of endovascular⁺ devices and prostheses.

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